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ABSTRACT

The literature on the use of strategic management principles by health care organizations is reviewed. After considering basic concepts of strategic management and managerial problems in nonprofit organizations, strategic planning and management of health care organizations are covered. Attention is directed to the health care environment, characteristics of health administration, and hospital performance measures. To measure success in health care organizations, consideration is given to the following approaches: (1) hypothesis testing to measure hospital performance and the use of strategic principles; (2) evaluating managerial characteristics of the hospital administrator, assuming unique operating conditions; and (3) and evaluating hospital performance, assuming general business conditions (strategic planning). It is noted that strategic management emphasized the achievement of objectives as the major aim of the organization. Unique management propositions for hospital administration include: hospitals exhibit some monopolistic traits; goals of voluntary, nonprofit health institutions are different from industrial and business institutions; and the administrator has wide discretion in price setting. (SW)

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ISSUES IN BUSINESS AND MEDICAL EDUCATION: BRIEF LITERATURE REVIEW ON STRATEGIC MANAGEMENT OF HEALTH CARE INSTITUTIONS

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INTRODUCTION

Health care institution's nonprofit nature is very difficult to adequately define. Nonprofit does not mean that the price or charge for each service is based exclusively on the cost of rendering that service, nor does it mean that a health institution financially breaks even over a stated accounting period. In fact, many health care organizations annually enjoy an income surplus after expenses, while others have to resort to deficit financing almost annually. Therefore, with more and more money moving into the health care field, the issue of strategic management of health care has become more important. In terms of the various components of the strategic management process, more studies seem to have been done in health care organizations than any other type of nonprofit institutions. Therefore, the object of this paper is to survey related literature of health care organizations and determine testable relationships with strategic management principles.

CHAPTER I: STRATEGIC MANAGEMENT AND THE NONPROFIT ORGANIZATION

1.1 Basic Concepts of Strategic Management

According to Schendel and Hofer (1980), strategic management is a "process that deals with the entrepreneurial work of the organization, with organizational renewal and growth, and more particularly, with developing and utilizing the strategy which is to guide the organization's operations" (p. 11). Thus, strategic management places emphasis on the achievement of objectives as the major aim on the organization. This combination of objectives, strategy, and policies forms the master strategy for the firm. The decision processes involved in an organization are closely related to this master strategy. Thompson and Tuden (1980) suggested that, despite the apparent importance of decision

making for theories of administration, present models and knowledge of decision making have generated few hypotheses about administration and, thus, have not been adequately linked with organizational models. According to Thompson and Tuden, there are several types of decisions to be made in and on behalf of collective enterprises, and each type of decision calls for a different strategy or approach. In addition, since there are several varieties of organizational structures which facilitate these several strategies, the resulting behavior defines variations in the decision processes.

Several relationships between the different levels of strategy and the type of organizational integration that deals with each type of strategy are given in Table 1. The four levels of strategy as defined by Schendel and Hofer (1980), include the enterprise, corporate, business, and functional levels. The business strategy is an attempt by the company to allocate its available resources to achieve a competitive advantage over its rivals. Since many alternatives are available and may coexist simultaneously and may vary under certain conditions, there appears to be very few universals of business strategy that applies to all

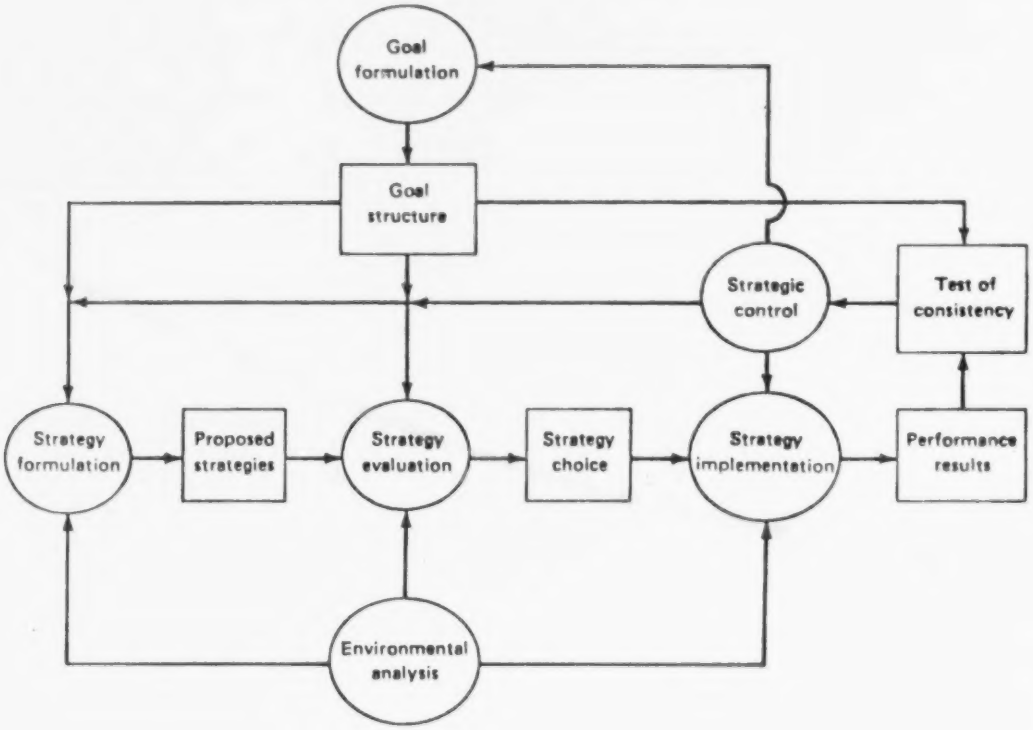
Table 1. Different Levels of Strategy (Schendel and Hofer, 1980, p. 11)

Strategy level	Integrates
1. Enterprise	1. Total organization/Society
2. Corporate	2. Businesses/Portfolio
3. Business	3. Functions/Business
4. Functional	4. Subfunctional/Function

circumstances. In addition, the business strategy includes a plan to integrate the various functional areas that comprise the business. In terms of hierarchical relationships among these four levels of strategy, "as one moves from enterprise strategy to corporate strategy to business strategy to function strategy, one not only moves down the organizational hierarchy, one moves downward in terms of constraints" (p. 13).

The examination of the various components of strategic management (Schendel and Hofer, 1980) yields six major tasks as shown in Figure 1. The six major

Figure 1: Various Components of Strategic Management Process (Schendel and Hofer, 1980, p. 15)



tasks include: (1) goal formation, which is influenced by the power and personal goals of stakeholders, condition of the organization, type of organization involved; (2) environmental analysis, which, due to uncertain and lack of control, is influenced by the difficulty of forecasting future values and determining important factors; (3) strategy formation; (4) strategy implementation, which deals with the evaluation of the present and future worth of the existing or proposed strategy; (5) strategy implementation, which is inherently behavioral in nature and primarily an administrative task; and (6) strategic control, which deals with the enforcing of the proper strategy and to ensure the results produced by the strategy were those intended. The last task, strategic control, is derived from the strategy and action plans developed to implement the strategy, and from the performance results that the strategy is expected to produce. Thus, if a deviation occurs, then feedback takes place and the strategic management process recycles, as illustrated in Figure 1 (p. 18).

1.2 Nonprofit Organizations and its Managerial Problems

Management of nonprofit organizations traditionally have been considered to be significantly different than the management of profit organizations. However, there have been few or no major studies indicating that this difference of management and its related managerial problems exist (Wortman, Jr., 1980). According to Newman and Wallender (1978), the following constraining characteristics seem to account for unusual managerial problems in the nonprofit sector. These characteristics are: (1) service is intangible; (2) weak customer or client influence; (3) strong employee committment to professions and weak allegiance to organization; (4) interference of internal management by resource contributors; (5) restraints on the use of rewards and punishments; and (6) alternate means of conflict resolution by charismatic leaders and the mystique of the enterprise itself. However, as noted by Wortman, Jr. (1980), these

characteristics also appear to a certain extent in profit oriented organizations as well.

Many nonprofit organizations, such as the health care industry, have a significant impact to our society in terms of money and human lives. According to Georgopoulos and Mann (1962):

> Few other organizations have a clear meaning for their members and customers, or more crucial functions for the complex social order within which they operate. In our organization-oriented society, the hospital is one of the few organizations of whose purpose we are vividly aware, and with whose functioning we are unambiguously concerned. (p. 1).

Hence, with more and more dollars moving into the health care field, "the issue of strategic management of health care has become more and more critical" (Wortman, Jr., 1980).

CHAPTER II: STRATEGIC PLANNING AND MANAGEMENT OF HEALTH CARE ORGANZITIONS

2.1 The Health Care Environment

Since, in a task-centered organization system, like the hospital, formal leadership constitutes an important mechanism for ensuring the channeling and integration of specialized performances, the problem of leadership and supervision is intimately tied to the problem of organizational coordination (Anderson, 1976; Baldwin, 1972; Milch and Martinell, 1980; Georgopoulos and Mann, 1962; Georgopoulos, 1972; Georgopoulos, 1975; Georgopoulos and Matejko, 1967). In addition, the hospital is an organization that mobilizes the efforts and competences of widely divergent professional and nonprofessional members to provide a highly personalized service. This health care, however, must be provided in a manner that is seen by the patient as tailored to him and, at the same time, "patient care must be rendered at a level of relative emotional detachment that promotes maximum technical efficiency and allows for the continued performance of organizational roles that are emotionally taxing"

(Georgopoulos and Mann, 1962, p. 423). Hence, a degree of impersonality in the performance of the various roles in the hospital is institutionally required.

Hospital's organizational structure must be designed to handle crises and emergencies, which involves matter of human life and whose outcomes are often uncertain and unpredictable. Given these conditions, it is important that the organizational lines of authority and responsibility be clearly drawn and control be maintained.

> Consequently, a good deal of regimented behavior is required by the system, and coordination of activities must in part be achieved in a highly directive manner, through formal hierarchical relationships. This reliance on authority, moreover, is accentuated because of financial considerations. To an extent, individualized service and the factor of unpredictability contribute to inefficiency. Regardless of cost, frequency of need, and frequency of actual use, for example, the hospital must have available equipment, supplies, and medicines which are costly, but which may be rarely used. (Georgopoulos and Mann, 1962, p. 423).

Hence, formal supervision and administration are relied upon to keep the level of this inherent organizational inefficiency to a minimum. Since both supervisors and administrators are expected to coordinate, direct, and even control the activities and working relationships of the hospital's members, prescription for supervisory behavior in the hospital usually calls for a certain degree of impersonality, deference, and social distance (Anderson, 1976; Baldwin, 1972; Georgopoulos, 1975; Georgopoulos and Mann, 1962). Under these conditions, the problem of motivating the participants toward effective attainment of organizational objectives is extremely difficult. Thus, the role of the administration is an important one in reconciling the impersonal demands of the situation with the personal needs of the organizational members, in order to maintain sufficient motivation for the required high level performance (Anderson, 1976; Burton, 1978; Georgopoulos, 1975; Georgopoulos and Mann, 1962; Gibbs, 1978; Newman and Wallender, 1978; Sapulveda, 1979). However, the medical staff is virtually

exempt from lay supervisory or administrative authority, but all other professional and nonpersonal personnel are subject to such authority.

2.2 Characteristics of Health Administration

Frequently, the heads of health administration departments are stumped when asked what is unique, different, or unusual about health administration in comparison with business management (Grimes and Webber and Dula, 1974; Wiseman, 1979). According to Shuler (1972), some hospital administrators discuss operating features of hospital and health services administration as unique characteristics of health administration. Frequently, these views are distinctly abstract and seldom provide much practical information. "Others frankly admit they have no answer or, at best, weak answers. However, most department heads and academicians hold tenaciously to the proposition that health administration is 'different' " (p. 10).

Shuler (1972) attempted to identify the unique educable characteristics or skills required by successful health administrators and sought unusual and innovative curricula by which to teach the identified skills or characteristics. This approach is similar to task analysis in technical education. Shuler developed a series of 15 propositions that describe the unique management characteristics of the hospital administrator. Although, according to Shuler, several of these characteristics overlap other areas, especially in the area of economics, most of the characteristics are clearly identifiable and reasonably specific to health administration. Some of the unique management propositions for hospital administration are:

1. The patient or customer is usually an involuntary user of the health institution. Thus, hospital patients exercise little choice in selecting the institution to which they are admitted, the type of services they receive or the charges they are assessed for the rendered services (p. 11). According

to Shuler, Helfer, and Trapnell (1970), the patient seldom knows what has been ordered for him/her, nor is he/she usually a competent or unbiased judge of the quality of the service he/she receives. Neither does he/she usually have much choice over what is charged for any service. "Therefore, the consumer of institutional health services is pretty much an involuntary pawn of the health care system" (Shuler, 1972). Under these conditions, the administrator must assume an unusual obligation for the protection of the customer's interests.

2. Hospitals exhibit some monopolistic traits. Health institutions may be the last segment of monopolistic business or industry within our society that are operating without public restraints and controls. Health institutions decide the quantity and quality of services to be rendered and the rates to be charged without the spur of competition, official sanction, or individual challenge (p. 12). According to Shuler (1972), "A test of the administrator's worth is his ability to use these characteristics to benefit his institution and patients, without detriment to society and the public" (p. 13).

3. Goals of voluntary, nonprofit health institutions are different from industrial and business institutions. "A salient factor in describing health institutions as nonprofit is the implication that no individual directly profits or is enriched by an operating profit" (p. 13). However, failure to understand and control cash flow sometimes causes real and avoidable problems. The nonprofit nature of health institutions and their obligation to remain solvent is confounded by the rules of payment imposed by third party payors, such as insurance companies. The varying and diverse schemes which different organizations use to remain both voluntary and nonprofit are seldom employed in other business enterprises (p. 13-14).

4. Administrator has wide discretion in price setting. Many factors and individuals contribute toward the determination of specific charges, but the

final decision must rest with the administrator. However, while cost is a significant factor in setting charges, many institutions lack precise cost accounting systems. "Therefore, costs may be estimated more frequently and, hence, probably more imprecisely, than is generally thought to be the case" (p. 14). Costs are generally determined by the administrator's policies and effectiveness. If an institution is to live by the rules and be both self-sustaining and nonprofit, charges must be set on some basis other than exact costs (p. 14).

5. Health institutions can in relatively easy manner cover mistakes or poor decisions. Depending on the type of controls available and the diligence with which they are imposed, the health administrator may be able to pay for negligent practices with small and frequent rate increases. Thus, "the health administrator uniquely has to exercise more self-restraint and more self-appraisal than most other businessmen and industrialists" (p. 15).

b. Changes are influenced more by the cost of rendering services than the quality of the services. Generally speaking, the quality of health service received is independent of the charges for the service. The patient or third party payor is unlikely to know which tests and other expenses are needed, because of charging conditions and which are reordered, because of improper results obtained due to carelessness or poor work efforts. However, as in most businesses, the incompetent employee is usually difficult to identify and always more difficult to dismiss. The "longer the inefficient are retained, the more nearly charges will be related to costs rather than quality" (p. 16). Therefore, a major job of the health administrator is to provide quality health services at a price which the patient can afford. Monopolistic health institutions seem to be in a better position to retain customers and to pass on the cost of rendering inferior service than most businesses.

7. The normal market place price setting is ineffective in determining health institution service charges. The quality or lack of quality has little to do with the demand for health services. "Hospital and health care administrators face the unique problem of determining the amount and the price of a given service at any given quality level, without the assistance of a relatively or minimally free market" (p. 17).

8. The nonprofit aspect of health administration lacks the incentive present in some industries. Where demand for service is not based wholly on need or quality, where prices are artifically set, where profit is not a factor, and where expense stand-by services must be maintained, other standards and motivators must be established for effective evaluation. Therefore, there is a general lack of incentive to maximize effective and efficient production in the health care organization.

9. The price of identical health services is too costly for some and too cheap for others. Depending on the financial condition of the customer, and whether or not he/she has third party coverage, the identical charge for the same quality and service can at the same time be too costly, properly priced, or too inexpensive. Often people with third party payers that cause the cost of the commodity to approach zero, treat the health service as economically having little value and, consequently, are over consumed and wasted. While the total and individual costs of health care continue to rise, for special population groups, the costs are being reduced to zero. "This inverse type pricing inequity occurs infrequently in other businesses and adds another uniqueness to which the health administrator must accommodate" (p. 18).

10. Faulty notions about health and medical economics complicate the cost problem. Money has been poured into the demand side of health care, and too little has been invested in developing additional manpower and resources. Thus,

the supply and demand equation is not functioning in medical economics, and there is no reasonable way to bring it into play (p. 19-20). "As a nation, we have acted on the false notion that the main or only need in bringing people health care is the availability of money to pay for the services required" (p. 20).

11. The qualifications of governing boards vary widely. In dealing with most businesses, individual members of the board of directors are highly qualified for the positions they hold. Unfortunately, few hospital governing boards are represented by the presence of any kind of health professional. In fact, some health institutions bar physicians from their governing bodies. "The potential hazards, inherent in unfamiliar health service problems, are more to be feared than the known dangers of the business world" (p. 20). Thus, the health administrator has the responsibility of guiding and training the governing body and gaining their confidence.

12. The health care industry is highly organized, both professionally and industrially. Health institutions are one of the most highly organized industries in the country. They consist of influential local, state, and national voluntary and governmental organizations of institutions, administrators, professionals, and quasi-professional health careerists. The medical industry is highly organized and exhibits considerable uniformity, even with retaining much of its fragmentation and autonomy. The hospital administrator must be "an independent operator while operating in a conformist role" (p. 22). Although this independent-conformist role is not unique to the health care field, its impact seems to be more pronounced in this area than in many other administrative fields.

13. The health administrator must be orientated to external fields. Usually, most community issues involve the interest of the health administrator. Thus, the health care administrator must be the broadest possible generalist, with the

ability to delegate specific tasks (p. 23).

14. The health administrator must face the moral and ethical issues of health service. Among those areas where moral and ethical values must be considered include resource allocation and types of health service to provide. The administrator's knowledge and decisions in the allocation of resources, for example, will have a bearing on the options open to the physicians and others in the health services area.

As suggested by Shuler, there characteristics are offered as "conceptual stepping stones" towards developing a better understanding of demands made upon a health administrator.

2.3 Hospital Performance Measures

Several researchers (Anderson, 1976; Baldwin, 1972; Burton, 1978; Cleverley, 1975, 1981; Grimes and Moseley, 1976; Newman and Wallender, 1978; Georgopoulos, 1972, 1975; Georgopoulos and Mann, 1962; Georgopoulos and Matejko, 1967; Glueck and Mankin, 1977; Webber and Dula, 1974; Whitman, 1981) have linked the operations and successful strategic management techniques to some type of health care organizational performance. Grimes and Moseley (1976), in a recent study, attempted to determine indexes of hospital performance. Two indexes were described, one based on measures of administrative effectiveness, the other on patient care effectiveness. The major concern in a related study was to examine correlations between performance measures and various modes of hospital organization and operation (Moseley and Grimes, 1976).

According to Moseley and Grimes (1976) and Grimes and Moseley (1976), an index of hospital performance should include measures of patient outcome. However, outcome measures have proven to be very difficult to implement (Ellwood, 1966a, 1966b; Fanshel and Bush, 1970; Lembeke, 1967; Roemer, Monstafa, and Hopkins, 1968). The major reasons for this difficulty lies in a combination

of inadequate record keeping, noncomparability of data between hospitals, confidentiality problems, and complex factors that affect the recovery of hospital patients. Hence, according to Grimes and Moseley (1976), in the absence of outcome measures, it is important that an index of performance includes measures of both organization structure and process, or measures of both system efficiency and patient care. In addition, the data required must be available and acceptable to those affected people in the hospital field. As Table 2 illustrates, about 30 measures were found by Grimes and Moseley (1976). These measures found in the table were selected and ranked by a Delphi panel, then weights were assigned by the panel to 19 selected measures, as shown in Table 3.

Upon isolation of these measures of effectiveness in Grimes and Moseley's (1976) study, a relatively simple additive index was used, as expressed by equation one:

$$I = \sum_{i-1}^{n} W_i X_i \qquad (1)$$

Where; W_i = weight assigned to measure i from Table 3

X_i = hospital's standardized score on measure i

n = number of measures in the index

The two separate indexes, I_p for patient care, and I_a for administrative performance, were derived by Grimes and Moseley (1976) using equation one. However, to make proper comparisons, score values for the individual measures are standardized or reduced to Z-scores, as given by equation two:

$$Z_i = \frac{(X_i - \bar{X}_i)}{S_i} \qquad (2)$$

Where: X_i = hospital's raw score on measure i

$\bar{X}_i$ = mean raw score of the group on measure i

S_i = standard deviation of $\bar{X}_i$

TABLE 2: Suggested Measures of Hospital Effectiveness or Performance (Grimes and Moseley, 1976)

Patient care measures	Administrative measures
STRUCTURAL	
Accreditation	Accreditation
Medical staff qualifications	Administrative staff qualifications
Professional staff qualifications*	Use of employee development programs
Professional staff training*	Personnel per occupied bed
Special care unit availability; utilization	Services provided
PROCESS	
Medical staff audit	Use of management studies
Average length of stay	Occupancy rate
Autopsy rate	Management planning activities*
Community involvement*	Community involvement*
OUTCOME	
Patient outcome	Cost per unit of output
Surgical procedures assessment	Man-hours per patient day
Adjusted death rate	Financial stability*
Hospital-acquired infections: reported; treated	
Malpractice suits*	
ATTITUDINAL	
Expert evaluation of patient care	Expert evaluation of administrative performance
Patient satisfaction (dissatisfaction)	Employee satisfaction (dissatisfaction)

Measures indicated were suggested by panelists during Delphi survey; the remainder were gleaned from health research literature.

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TABLE 3: Mean Delphi Rankings and Mean Weights of Effectiveness Measures (Grimes and Moseley, 1976)

Measure	Ranking			Index weight (round III)
	Round I	Round II	Round III	
PATIENT CARE				
Surgical procedures assessment	1	1	1	17.0
Expert evaluation	4	2	2	15.9
Medical staff qualification	5	3	3	15.3
Medical audit	8	6	4	15.1
Accreditation	3	4	5	9.9
Patient satisfaction	6	7	6	9.6
Autopsy rate	12	10	7	6.6
Average length of stay	9	8	8	5.9
Adjusted death rate	7	9	9	5.0
Patient outcome	2	5	*	...
Hospital-acquired infections treated	10	†	...	...
Professional staff qualifications	§	11	...	...
Hospital-acquired infections reported	11	12	...	...
Special care unit utilization	13	†	...	...
Special care unit availability	14	13	...	...
Malpractice incidence	§	14	...	...
Professional staff training	§	15	...	...
Community involvement	§	16	...	...
ADMINISTRATIVE				
Use of management studies	1	1	1	18.6
Cost per unit of output	2	2	2	14.9
Expert evaluation	4	3	3	11.1
Accreditation	3	5	4	9.7
Personnel per occupied bed	5	7	5	9.5
Employee satisfaction	7	4	6	9.1
Man-hours per patient day	6	6	7	8.5
Administrative staff qualifications	9	8	8	8.1
Use of employee development programs	10	9	9	5.8
Occupancy rate	11	10	10	4.4
Services provided	8	11	...	...
Management planning activities	§	12	...	...
Financial stability	§	13	...	...
Community involvement	§	14	...	...

* Dropped from list because data could not be obtained.
† Dropped from list on basis of panel suggestions.
§ Not on original list, but added by experts in first round.

(However, as a side note from the writer, simple multiple linear regression analysis techniques, which uses the general least squares olution and dealing with variances, may be more appropriate than converting the raw scores to standard scores.)

For negative measures, such as a high score corresponding to undersirable performance, the authors suggested the sign of Z_i to be changed, as implied in equation three:

$$X_i = \frac{-(X_i - \bar{X}_i)}{S_i} = -Z_i \qquad (3)$$

For ambivalent measures, such as deviation either above or below the mean implies undesirable performance, the absolute value of Z_i is given a negative sign, as shown in equation four:

$$X_i = - \left| \frac{(X_i - \bar{X}_i)}{S_i} \right| = - \left| Z_i \right| \qquad (4)$$

In the Grimes and Moseley's (1976) study, 32 short-term general hospitals in the Houston, Texas area were selected in a field test of the index. The results of the study are shown in Table 4.

Table 4: Rank Order Correlation Between Component Measures and Overall Index Score (Grimes and Moseley, 1976).

Measure	r_s
PATIENT CARE PERFORMANCE	
Autopsy rate	0.62
Medical audit	0.61
Expert evaluation	0.58
Accreditation	0.43
Medical staff qualifications	0.40
Average length of stay (actual value)	0.29
Adjusted death rate	0.18
Surgical procedures assessment	-0.07*
Patient dissatisfaction	-0.36*
ADMINISTRATIVE PERFORMANCE	
Management studies	0.73
Expert evaluation	0.46
Administrative staff qualifications	0.41
Accreditation	0.37
Personnel per occupied bed (actual values)	0.26
Employee development	0.21
Nursing hours per patient day	0.18
Occupancy rate	0.17
X-ray cost (actual values)	0.12
Lab cost (actual values)	0.11
Employee dissatisfaction	-0.01*
Housekeeping	-0.12
Laundry (actual values)	-0.21

* These negative correlations indicate a positive relationship with effectiveness because of the inverse scoring.

The correlations in the table indicate no component dominates either index, suggesting that the indexes seem to reflect the many facets of hospital effectives. In addition, a profile of the hospitals that scored high on the effectiveness indexes revealed that those hospitals scoring high on patient care index reported an effective medical audit program, a high autopsy rate, longer lengths of stay, higher percentage of board certified specialists, were rated higher by the Joint Commission on Accreditation of Hospitals, were judged better by their peers, and had fewer dissatisfied patients. Hospitals scoring high on the administrative effectiveness index were judged better both by their peers and by the JCAH, had better educated and more experienced administrative staffs, did more management analysis, and had more personnel per occupied bed.

2.4 Strategic Planning in the Health Care Organization

Several studies have dealt with various aspects of the strategic management process: analysis (Baldwin, 1972); for mulation (Cleverley, 1975, 1981; Webber and Dula, 1974; Glueck and Mankin, 1977; Sapulveda, 1979; Wiseman, 1979); implementation (Anderson, 1976), and evaluation (Grimes and Moseley, 1976; Milch and Martinelli, 1980; Moseley and Grimes, 1976; Whitman, 1981). Defining strategic planning, which is that set of decisions and actions which lead to the development of an effective strategy, in the hospital setting requires defining the objectives of the hospital. These objectives, as previously developed in the preceeding sections of this paper, includes quality patient care, excess revenues over costs, and providing low cost health care. According to Mankin and Glueck (1977), a strategy is both comprehensive - it covers all major aspects of the hospital - and a strategy is integrated - all the parts of the plan are compatible with each other and fit well together. Thus, strategic planning is a continuous process, adapting to changing conditions or circumstances. "Strategic planning's output is not a document or plan but rather, it

is a managerial philosophy" (p. 7). A number of reasons can be given by administrators and researchers why hospitals should engage in business policy or strategic planning. According to Mankin and Glueck, a few of these reasons or requirements for strategic planning in hospitals include:

1. Conditions of most hospitals change so fast that strategic planning is the only way to anticipate future threats and opportunities.

2. Strategic planning provides all the employees and departments with clear goals and directions to the future of the enterprise.

3. Businesses which perform strategic planning are more effective than those which do not and their employees are more satisfied.

4. Social Security Administration, on July 7, 1975, made institutional planning mandatory for participation in Medicare or Medicaid. This new regulation requires that hospitals, under the direction of their governing body, prepare an overall plan and budget which provides for an annual operating budget and a capital expenditure plan. The capital expenditure plan must cover a three year period and the overall plan should be reviewed annually and updated. Such planning is expected to result in more effective and efficient use of capital resources and exert some control over the general rise in health care costs (p. 7-9).

The strategic planning process is generally performed by top managers, but hospitals are different from many businesses in that they function with a triad of top managers, namely administrators, medical staff, and the board of trustees. Thus, compromise and harmony become important objectives with effectiveness to be considered by the triad. However, as Johnson (1974) found in hospital settings, the board of trustees do not serve the same purposes as those of corporations, but rather acted as an arbitrator between the other two major power sources. As stated by Glueck and Mankin (1977), since the board of trustees is a reflection of the community the hospital serves, it is very difficult to

find trustees that have a knowledge in the areas of health care, capital financing, comprehensive health planning guidelines, etc. as discussed previously by Shuler (1972).

Glueck and Mankin (1977) analyzed 15 Missouri community, general hospitals stratified by size, ownership, and complexity of diagnoses via field interviews and questionnaires. They found that in 80 percent of the hospitals surveyed, consultants were used to help determine optimum planning strategies, but most administrators relied on financial consultants. In addition, most administrators cited that harmony between the power triad was most important, sometimes regardless of the correctness of the strategic decision. This arrangement is a common occurrence to a complex business operation and not unique to the health care field. In addition, each administrator was given a list of 13 resources and was asked to rank each as an advantage or disadvantage. The results of this task is given in Table 5. The larger the institution, the more advantages the administrator felt the hospital had.

In summary, Glueck and Mankin (1977) found that all the hospitals did not formally plan their strategies in much detail, even though they will be required to do so by law. Few did an effective job in appraising the environment to anticipate major changes or opportunities. Objectives were not defined, choices were informal, and appraisal haphazard. According to Glueck and Mankin;

> We predict, though, that the effective administrator of the future - like the effective business person of the present - will formalize strategic planning. Yet prior to that day, much more pressure will have to be exerted by outside groups and perhaps more training given to the administrators in the art of strategic planning. (p. 22).

Thus, the most important part of strategic planning is the hospital administrator's everyday use of a long range plan and the formulation of decisions in accordance with this plan. "The excuse that the hospital industry is too dynamic to formulate long-range plans will no longer suffice. The hospital administrator

TABLE 5: Factors Seen as Advantages and Disadvantages by Administrators (Glueck and Mankin, 1977, p.16)

	Advantage	*Disadvantage*
Location of hospital	47%	13%
Age of equipment	47%	13%
Amount and flexibility of funds	40%	20%
Readiness to raise added capital	40%	20%
Hospital image	53%	6%
Hospital information system	27%	33%
State of hospital	20%	20%
Public relations	27%	27%
Cost effectiveness of services	47%	6%

must begin to make planned decisions rather than reacting to each individual situation" (p. 22).

Cleverley (1976) in an input-output analysis of hospital budgets found some interesting results in regard to strategic planning. The general budgeting objectives in hospitals are not unlike budgeting objectives in other industries, which suggests that "hospital budgets should facilitate short-term planning and management control of operations - objectives that could come from any standard accounting or finance text" (p. 34). However, although flexible budgeting is one of the most effective tools management has to control costs, flexible budgeting is not yet extensively used, because many hospitals are still in a rudimentary stage of budget development. The input-output model recognizes that a certain component of labor costs may be fixed, whereas the hospital's budget assumes all labor costs are totally variable. In Cleverley's study, the accuracy of the labor budgets of the two systems studied were compared for the last 13 two-week periods of 1970. Two measures of accuracy were used: (1) percent error over the entire budget period; and (2) number of individual periods during which one system is more accurate, as measured by percent error, than the other system. As shown in Table 6, the two systems were compared and both accuracy measures indicate that the I-O labor budget was more accurate. Budget accuracy could have been greatly improved if the I-O statistical methodology had been used instead of the existing negotiated labor budget. Effective cost control requires a detailed cost accounting system that will report when and where costs were incurred and a budgeted or standard cost for each defined department or cost control center. Thus, differences between actual and budgeted costs may then be analyzed to determine whether the variance should be subjected to further investigation. However, the then current policy of the study hospital that was investigated by Cleverley was to

investigate variances when they seem to be too large. In addition, no differentiation was made between favorable and unfavorable variances. Thus, strategic planning of budget and cost control could have had great impact on the planning and cost decisions of the study hospital.

Table 6. Comparison of Labor Budget Accuracy (Cleverley, 1975).

Department	Percent error over 26-week period		No. of 2-week periods in which I-O budget was more accurate
	Hospital's budget	I-O budget	
All departments	-11.2	1.3	9.375
Routine services			
Medical surgical	-9.7	-1.9	13
Obstetrics	-11.7	-9.7	11
Intensive care	0.0	3.2	4
Nursery	-5.5	1.1	10
Elderly	-4.8	8.5	6
Ancillary services			
Surgery	-0.6	4.5	8
Delivery	-5.6	-3.9	9
Radiology	-10.1	-2.3	13
Laboratory	-12.4	-7.4	12
EKG	1.4	42.2	2
Isotope	-1.7	-9.4	8
Physical therapy	3.0	1.2	12
EEG, EMG	-11.4	-5.9	10
Pulmonary function	-19.1	6.0	11
Other services			
Outpatient	5.8	-3.5	8
Health screening	-67.1	-2.1	13

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Baldwin (1972) studied the organizational characteristics of some general service hospitals in Florida to determine if validation of some aspects of Lawrence and Lorsch (1967) study concerning organizational differentiation and integration on hospital performance. Differentiation, as used in the Lawrence and Lorsch study, is the difference incognitive and emotional orientation among managers in different major departments within the organization. Integration is defined as the quality of the state of collaboration that exists among departments that are required to cooperate in order to achieve the organization's objectives (Baldwin, 1972, p. 52). Structurally, the organizational role of the supervisor, at any level, is primarily one of linking together different parts of the organization structure and integrating their specialized performances (Baldwin, 1972; Georgopoulos and Mann, 1962; Georgopoulos and Matejko, 1967).

Results of the analysis of Baldwin's empirical study, as shown in Table 7, indicate that the findings of Lawrence and Lorsch (1967), pertaining to degrees of differentiation and quality of integration and their relationship to organization performance, are valid in hospital organizations. In the study of industrial organizations by Lawrence and Lorsch, dynamic industries' greater degrees of differentiation and integration resulted in higher organizational performances. The hospitals in Baldwin's sample, when ranked by degree of attainment of the required organizational differentiation, indicated a significant relationship to the performance ranking of these same organizations. In addition, the ranking of the sample hospitals by quality of integration indicated a significant relationship to organization performance. Thus, according to Baldwin, the "possibility exists that the validating of Lawrence and Lorsch findings in hospital organizations widens the application of their multi-variable approach to organization theory" (p. 69). The analysis of data in Baldwin's study also indicated that in the hospital environment, differentiation could be more significant to organization performance than integration, and differentiation

Table 7: Rankings of Differentiation, Integration, and Performances in the Hospital (Baldwin, 1972).

Hosp.	Quality of Integration	Integr. Rank*	Perf. Rank	Diff. Rank†	No. of Depts. Deviating from Desired Level of Differentiation
1	33.1	L	M	M	6
2	24.9	H	M	H	3
3	26.0	M	M	H	4
4	23.0	H	H	H	4
5	25.4	M	L	M	7
7	29.6	L	M	L	11
8	25.1	H	H	M	5
9	27.3	M	L	M	7
10	29.1	L	H	H	4
11	29.8	L	L	L	11
12	26.4	M	L	L	9
13	27.8	L	L	L	10
15	21.6	H	M	L	12
16	26.8	M	H	M	6

* Significant at .02 level using Spearman's rank-order correlation method.
† Significant at .005 level using Spearman's rank-order correlation method.

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is prerequisite to integration. Thus, "achieving the desired level of differentiation is of primary importance to hospital administrators" (p. 70).

CHAPTER III: MEASURING SUCCESS IN THE HEALTH CARE ORGANIZATION

3.1 Hypothesis Testing to Measure Hospital Performance and Use of Strategic Management Principles

A series of hypotheses may be developed to test the performance standards of a health care organization. However, there appears to still be a controversy to the status of the uniqueness of the education and job requirements of the hospital administration. A question remains concerning whether a body of knowledge sufficiently different from other management and administration operations exists, and justifies separation of hospital and health services administration from other academic programs. Since hospital and health services administration is an emerging profession, significant differences from other professions must be identified. If one assumes that this uniqueness or difference does exist, then a series of hypotheses can be generated for testing. However, if the hospital organization functions under the relatively same business environment as most business enterprises, then strategic management principles apply. Therefore, two sections are developed in the actual hypothesis generation that reflect these two assumptions.

3.2 Managerial Characteristics of Hospital Administrator, Assuming Unique Conditions of Operation

1. Does the health administrator assum an obligation for the protection of his/her customer's interests.
2. Does the health administrator maximize the benefits associated with the monopolistic characteristics of the hospital to the benefit of the institution and patients, without detriment to society? Since health institutions are organizationally independent, silf-governing, self-perpetuating,

operate on voluntary capital, and internally controlled by nonproprietary and nonpolitical governing bodies, does the administrator maximize these elements?

3. Does the health administrator establish depreciation or replacement costs, control waste, apply accelerated depreciation rates to high obsolescence items? Failure to understand and contol cash flow can cause real problems.
4. Since the health administrator has more discretion in setting charges, does he/she practice a fair and realistic approach to maximize services available to the patient at a minimum cost? This hypothesis is especially critical, since hospital and health care administrators face the unique problem of determining the amount and price of a given service at any given quality level, without the assistance of a free market.
5. Does the health administrator complete his responsibility of guiding and training the governing body (board of trustees and medical staff) and gain their confidence?
6. Does the health administrator direct a large amount of his time and attention to community matters and generate publicity and concern of his/her hospital for community affairs?

3.3 Hospital Performance, Assuming General Business Conditions (Strategic Planning)

1. Has organizational differentiation been maximized to maximize organization performance and develop integration?
2. In terms of administrative performance, have the following items been maximized:
   a. managemential studies of staffing, costs, budgeting, employee turnover, clinic waiting times, purchasing procedures or supply efficiency, diatary product packaging or distribution, service utilization,

maintenance scheduling, drug packaging or distribution, patient transportation or scheduling, supply inventory or distribution, computer applications to patient care, computer applications to financial analyis, blood bank inventory analysis, laboratory utilization or scheduling, long-range planning for capital expenditures, and long-range planning for service addition or expansion (Grimes and Moseley, 1976)?

b. expert evaluation of administrative personnel?

c. administrative staff qualifications?

d. accreditation?

e. personnel per occupied bed?

f. employee development?

g. nursing hours per patient day?

h. occupancy rate?

3. In terms of patient care performance, have the following items been maximized?

a. autopsy rate?

b. presence of and support of medical audit by physicians?

c. accreditation?

d. medical staff qualifications?

e. average length of stay?

f. improving surgical procedures?

4. Is the relationship between the power triad (administrators, medical staff, board of trustees) strong and trusting enough to allow administrators leeway to implement strategic change?

5. If a hospital has a strategic plan, is the plan detailed enough and over long enough periods to be effectively followed?

6. Is the hospital administrator educated in business so that he/she can begin to

make planned decisions rather than reacting to each individual situation?

7. Is a differentiation made between favorable and unfavorable variances between actual and budgeted costs, and acted upon accordingly?
8. Are statements concerning costs and future needs stated in probabilistic terms with investigated feedback on variances, both favorable and unfavorable?

CONCLUSION

Although many people feel that the health administrator faces some of the most vexing and unique problems in our society, most studies have shown this administrator to be poorly educated in sound business practices and operating in an isolated and unrealistic environment. Hospital administrators argue that, as a nation, most business managers have acted on the false notion that the main or only need in bringing people health care is the availability of money to pay for the services requested. This notion, according to health field personnel, is due to the galse notions and expectations which exist concerning medical economics. Business administrators argue, on-the-other-hand, that the health field, like any organization, should engage in business policy or strategic planning. Under this assumption, most hospitals do not formally plan their strategies in much detail. Few hospital administrators completed environmental appraisals, strategic choice of alternatives, implementation, and evaluation of hospital performance. Thus, according to Glueck and Mankin (1977), "What is forgotten is that comprehensive health planning or management by objectives is only one small portion of strategic planning and that suboptimization occurs when concentration is devoted in only a few areas of the master plan" (p. 22). Hence, the controversy continues between the two groups.

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